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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,392	02/06/2004	Sherif Yacoub	200310469-1	6342

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/773,392	Applicant(s) YACOUB ET AL.	
	Examiner Leonard Saint-Cyr	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 2, 3, 5, 6, 9- 13, 15, 16 – 18, 21, and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Bennett et al., (US PAP 2002/0194000).

As per claims 1, and 9, 15, 21, Bennett et al., teach a system, comprising:

a first speech recognition engine; a second speech recognition engine

("recognizers A- N"; paragraph 12, lines 1 –3); and

evaluation logic coupled to the first and second speech recognition engines, the evaluation logic evaluates the first and second speech recognition engines based evaluation signals from a user and, based impart on the evaluation, selects one of said speech recognition engines ("select a different recognizer") to process additional speech signals from the user ("recognizer A is being enabled base upon its expected future performance"; paragraph 22; paragraph 34; paragraph 35, lines 11, and 12).

As per claims 2, 10, Bennett et al., further disclose a switch coupled to the first and second speech recognition engines and the evaluator, wherein, based on the

evaluation, the evaluation logic causes the switch to release a connection to the speech recognition engine that was not selected ("output switch"; paragraph 13).

As per claim 3, Bennett et al., further disclose a communications mechanism and, based on the evaluation, the evaluation logic selects the communications mechanism that is not the first or second speech recognition engines ("selects the results from the best recognizer"; paragraph 26, lines 1 - 4).

As per claim 5, Bennett et al., further disclose that the evaluation logic determines a response time for each of the first and second speech recognition engines and selects the second speech recognition engine if the response time of the second speech recognition engine is equal to or shorter than the response time of the first speech recognition engine ("recognizer A adapts slowly... the system chooses recognizer B"; paragraph 35, lines 1 – 6).

As per claim 6, Bennett et al., further disclose the evaluation logic receives a first confidence score from the first speech recognition engine and a second confidence score from the second speech recognition engine and selects the second speech recognition engine if the confidence score of the second speech recognition engine is equal to or higher than a threshold ("the second recognizer's results would win"; paragraph 42, lines 11 – 16).

As per claim 11 – 13, 16 -18, 22, Bennett et al., further disclose means for evaluating a parameter comprises means for assessing the relative accuracy of the first and second means for recognizing speech; wherein the means for evaluating a parameter comprises means for assessing the relative performance of the first and second means for recognizing speech; and wherein the first and second means for recognizing speech comprise a means for determining a confidence score associated with the voice input ("measure of confidence values"; paragraphs 27, and 28).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al., (US PAP 2002/0194000) in view Kemble et al., (US PAP 2002/0133346).

As per claim 4, Bennett et al., teach comparing outputs from the first and second speech recognition engines (paragraph 26). However Bennett et al., do not specifically teach selecting the first speech recognition engine if the outputs are identical.

Kemble et al., teach that if multiple recognition results are identified with the same or similar confidence scores, the speech recognition system can select the identified recognized result provided from the post-processing task using the grammar subset (paragraph 40, lines 5 –9).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the identified recognized result using the grammar subset as taught by Kemble et al., in Bennett et al., because that would help make the system more convenient by using a more simple recognizer.

5. Claims 7, 8, 14, 19, 20, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al., (US PAP 2002/0194000).

As per claims 7, 14, 19 and 23, Bennett et al., do not specifically teach the first speech recognition engine permits a plurality of ports to be used on behalf of a plurality of users and the system further comprises a port monitor coupled to the first speech recognition engine and to the evaluation logic, wherein the port monitor determines a number of currently available ports and, if the number of currently available ports exceeds a threshold, causes first speech recognition engine to be used.

However, since Bennett et al., teach receiving an input audio stream through a port, and connecting to the speech recognizers. The system may be configured so that it enables only a single recognizer (paragraph 10, lines 1 – 6; paragraph 21, lines 1, and 2). One having ordinary skill in the art at the time the invention was made would have found it obvious to set up a threshold and use only the primary recognition engine when number of available ports exceed the threshold in Bennett et al., because that would make the selection process trivial, by only generating only one result (paragraph 21, lines 3 – 5).

As per claim 8, 20, and 24, Bennett et al., do not specifically teach that if the number of currently available ports is below a threshold, the port monitor causes one of the speech recognition engines to be selected based on the evaluation.

However, since Bennett et al., teach that the system may enable all recognizers and only use the predictor to select the results predicted to be the best. The predictor gathers all information available and selects the results from the best recognizer (paragraph 21, lines 6 – 9; paragraph 26, lines 1, and 2). One having ordinary skill in the art would have found it obvious to select a recognition engine based on the evaluation in Bennett et al., because that would select a particular recognizer for the user (paragraph 22, lines 15, and 16; paragraph 26, lines 2, and 3).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Baker (US Patent 6,122, 613) teaches a speech recognition using multiple recognizers applied to the same input sample.

Balasuriya (US Patent 6,898, 567) teaches a method and apparatus for multi-level distributed speech recognition.

Basson et al., (US Patent 6,996,526) teach a method and apparatus for transcribing speech when a plurality of speakers are participating.

Chang et al., (US PAP 2003/0040907) teach a speech recognition system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard Saint-Cyr whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
04/25/07


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER